

Abstract of the Disclosure

A two-stage shock absorber has a pressure tube within which a valve assembly is slidably disposed. A piston rod is attached to the valve assembly and extends out of the pressure tube. A ring is slidably disposed within the pressure tube and engages the valve assembly. After a specified amount of movement of the valve assembly with respect to the pressure tube in an extension movement of the shock absorber, the sleeve engages a plurality of spirally positioned bores and reduces the fluid flow through the valve assembly to progressively switch the shock absorber from soft damping to firm damping. In another embodiment the sleeve engages a spiral groove of variable depth to reduce the fluid flow through the valve assembly to progressively switch the shock absorber from soft damping to firm damping.